APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,658	08/31/2000	Jerome R. Mahoney	IVC-103A	5478

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EXAMINER
CHOW, MING

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/653,658</td><td>MAHONEY, JEROME R.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td></tr>
<tr><td></td><td>Ming Chow</td><td>2645</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 December 2002</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1.   Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The term "likelihood" and phrase "most likely" is not clearly defined. It is unclear

how "likely" the "likelihood" and "most likely" refer to.

2.   Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The phrase "default functions" is not clearly defined. It is unclear what are default

functions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 11-20 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Perrone (US-PAT-NO: 6,157,705), and in view of Stubley et al (US-PAT-NO: 6,092,045).

For claim 11, regarding section (a), Perrone teaches on column 17 line 10 "Fig. 5 is a

block diagram of a computer system upon which an embodiment of the present invention can be

implemented". The "Fig. 5" of Perrone displays a support structure for physically supporting the

system as claimed.

Regarding section (b), Perrone teaches on column 14 line 53 "the speech recognizer

executes speech recognition processes on the digital voice file to recognize a natural language

word, phrase, resource identifier, or command in the digital voice file". The "speech recognizer"

of Perrone is the claimed "speech recognition digital signal processor (DSP)".

Perrone failed to teach "continuous speech recognition engine utilizes tokens of raw

acoustic signals representing utterances or words and matches these against a set of models and

then relies upon likelihood to select a most likely model to decode signals for interpretation".

However, Stubley et al teach on column 7 line 26 "each word in the vocabulary is represented by

a string of hidden Markov models (HMMs)". The "HMMS" of Stubley et al reads on the claimed

"continuous speech recognition engine utilizes tokens of raw acoustic signals representing

utterances or words and matches these against a set of models and then relies upon likelihood to

select a most likely model to decode signals for interpretation" (see Applicant's Specification,

line 12 page 37 to line 8 page 39).

Regarding section (c), Perrone teaches on column 2 line 66 "integrate speech recognition

software in a computer program". The "computer" of Perrone is the claimed "microprocessor".

Regarding section (d), Perrone teaches on column 4 line 46 "Fig. 1C shows a block diagram of hardware elements of an interactive voice response (IVR) system. The hardware elements shown on Fig. 1 of Perrone is the claimed "sufficient programming and circuitry contained within said programmable microprocessor". The IVR of Perrone is the claimed "microprocessor to provide for voice activation and voice recognition and response". Perrone also teach on column 19 line 35"showing the locations of that class of rooms". The "location of that class of rooms" of Perrone is the claimed "item location".

Regarding claim (e), Perrone teaches on column 3 line 1 "the computer is connected through an interface to an microphone". The microphone of Perrone is the claimed voice input means.

Regarding section (f), Perrone teaches on column 6 line 42 a non-volatile memory such as a ROM is used to store bootstrap instructions and other constant information. Instructions and data for execution and use by processor are loaded from storage device into a volatile local high-speed memory such as RAM. The bootstrap instructions and other constant information of Perrone is the claimed operational inputs and control inputs. Perrone also teaches on column 18 line 13 control of a server using voice commands is performed by computer system in response to processor executing sequence of instructions contained in memory. The voice command of Perrone is the claimed voice recognition vocabulary.

Regarding section (g), Perrone teaches on column 15 line 20 and Fig. 1A the computer has built-in multimedia hardware or an interface board providing sound capability. The multimedia shown on Fig. 1A (#4) of Perrone is a computer monitor that is the claimed visual feedback.

It would have been obvious to one skilled at the time the invention was made to modify Perrone to have the continuous speech recognition engine utilizes tokens of raw acoustic signals representing utterances or words and matches these against a set of models and then relies upon likelihood to select a most likely model to decode signals for interpretation as taught by Stubley et al such that the modified system of Perrone would be able to support the continuous speech recognition engine to the system users.

Regarding claim 12, Perrone teaches on column 9 line 46 "the page has graphical and text elements".

Regarding claim 13, the rejections of claim 11(d) and 11(g) apply to claim 3.

Regarding claim 14, Perrone teaches on column 6 line 42 "a non-volatile memory such as a ROM is used to store bootstrap instruction". It is inherent that the bootstrap instructions include diagnostics and system programming. Perrone also teaches on column 18 line 13 "control of a server using voice commands is performed by computer system". It is inherent that the server is a remote unit to the client.

Regarding claim 15, the rejection of claim 11(e) applies to the claim 5.

Regarding claim 16, Perrone teaches on column 17 line 34 "a keyboard". The "keyboard" of Perrone is the claimed "secured manual control panel". Perrone also teaches on column 19

line 34 "locations of that class of rooms" and column 19 line 40 "in a catalog shopping

application". The "catalog shopping application and locations of that class of rooms" of Perrone

is the claimed "item and location data".

Regarding claim 17, the rejection of claim 16 applies to the claim 17. Perrone also

teaches on column 10 line 5 "each of the underlined text items in the utility menu column is a

hyperlink to a web page that presents information relating to the underlined text item". The

rejection of claim 11(e) teaches the microphone also applies to claim 17. The rejection of claim

11(g) teaches the monitor also applies to claim 17.

Regarding claim 18, Perrone teaches on column 15 line 16 "the computer is equipped

with hardware that can receive a digital signal representing sounds, convert the digital signal to

an analog signal, amplify the analog signal and lay the analog signal through one or more

loudspeakers"

Regarding claim 19, Perrone teaches on column 5 line 32 "the IVR system is coupled to a

speech recognizer and to the server". It is inherent that the speech recognizer must have speech

signal recognizer and speech signal interpreter. It is inherent that the IVR system is a continuous

speech exchange system.

Regarding claim 20, Perrone teaches on Abstract "the control software receives a spoken

utterance to recognize s resources identifier in the utterance". The software must be embedded

(on system memory). The "receives a spoken utterance" of Perrone reads on the claimed "voice

driven interface". The "to recognize a resources identifier" of Perrone reads on the claimed

"operational instructions". Perrone also teaches on column 19 line 35 "showing the locations of

that class of rooms". The "showing the locations of that class of rooms" of Perrone reads on the

claimed "locator function". Perrone also teaches on Fig. 3B various claimed "options". Perrone

also teaches on item 400 "establish data communication channel" and item 402 "establish voice

communication channel" of Fog. 4 are the claimed "default functions".

Regarding claim 26, Perrone teaches on column 1 line 32 "The end user takes the

telephone handset off hook and dials a pre-determined telephone number that identifies the IVR

system".

Regarding claim 27, Perrone teaches on items 4 and 8 Fig. 1A "computer system"

(column 17 line 10-13). The "computer system" of Perrone is the claimed "portable support

structure".

Regarding claims 28-30, the modified system of Perrone in view of Stubley et al as stated

in claims 11, 16 and 18 above failed to teach speech recognition engine uses Hidden Markov

Models for its continuous speech recognition engine. The rejections of claim 11(b) as stated

above apply to claims 28-30. It would have been obvious to one skilled at the time the invention

was made to modify Perrone to have the speech recognition engine uses Hidden Markov Models

for its continuous speech recognition engine as taught by Stubley et al such that the modified

system of Perrone would be able to support the Hidden Markov Models to the system users.

4.   Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perrone and

Stubley et al as applied to claim 11 above, and in view of Cohen et al (US-PAT-NO: 6,507,352).

Perrone and Stubley et al failed to teach response to provide item location to a user includes aisle

location. However, Cohen et al teach on column 32 line 37 "product location information (e.g.

aisle number and shelf location) is displayed on the display monitor. It would have been obvious

to one skilled at the time the invention was made to modify Perrone and Stubley et al to have the

response to provide item location to a user includes aisle location as taught by Cohen et al such

that the modified system of Perrone and Stubley et al would be able to support the aisle and shelf

location to the system users.

5.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perrone and

Stubley et al as applied to claim 11 above, and in view of Reed (US-PAT-NO: 6,394,278).

Perrone and Stubley et al failed to teach response to provide item location to a user includes bin

number. However, Reed teaches on column 7 line 27 "display screen for conveying destination

information in the form of a bin number". It would have been obvious to one skilled at the time

the invention was made to modify Perrone and Stubley et al to have the response to provide item

location to a user includes bin number as taught by Reed such that the modified system of

Perrone and Stubley et al would be able to support the bin number to the system users.

6.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perrone and

Stubley et al as applied to claim 11 above, and in view of Radican (US-PAT-NO: 6,148,291).

Perrone and Stubley et al failed to teach response to provide item location to a user includes row

and slot location. However, Radican teaches on column 12 line 33-42 "Fig. 11A is one graphic

form.....selected container is displayed .....row and slot designation". It would have been

obvious to one skilled at the time the invention was made to modify Perrone and Stubley et al to

have the response to provide item location to a user includes row and slot location as taught by

Radican such that the modified system of Perrone and Stubley et al would be able to support the

row and slot location to the system users.

7.   The Declaration under 37 CFR 1.132 filed 12-9-02 is insufficient to overcome the

rejection of claims 11-30 based upon USC 112 and USC 103 as set forth in the Office action

because:

        The declarations made by Mr. Jerome Mahoney are defective because Mr. Mahoney is

not one of ordinary skill in the art. Mr. Mahoney is the inventor and has been involved in

software development and marketing for eight years. Mr. Mahoney's opinions in brief cannot

take the place of facts.

        Also, the fifth paragraph of declarations include(s) statements which amount to an

affirmation that the affiant has never seen the claimed subject matter before. This is not relevant

to the issue of nonobviousness of the claimed subject matter and provides no objective evidence

thereof. See MPEP § 716.

Further, Mr. Mahoney acknowledges the Hidden Markov Model is known to many

system. Although the primary reference (Perrone) does not teach using Hidden Markov Model

for the voice recognition. It is a perfect motivation to combine Stubley and Perrone so that the

Hidden Markov Model would be used by Perrone's system in order to supoort the continuous

speech recognition as claimed.

Response to Arguments

8.   Applicant's arguments filed on 2/12/02 have been fully considered but they are not

persuasive.

    i)   Applicant argues, on page 6, regarding the present invention is primarily for locating

            items directories for a consumer or shopper. However, the referenced prior art

            (Perrone) does teach locating items ("location of class of rooms" of Perrone).

    ii)   Applicant argues, on page 7, regarding the motivation of using the second reference

            (Stubley et al). The primary reference (Perrone) addressed the voice recognition

            without detailing the recognition process. The second reference (Stubley et al) teaches

            the Hidden Markov Model. Therefore, although the primary reference (Perrone) does

            not teach using Hidden Markov Model for the voice recognition. It is a perfect

            motivation to combine Stubley et al and Perrone so that the Hidden Markov Model

would be used by Perrone's system in order to supoort the continuous speech

recognition as claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

***** NOTICE *****

ANY AMENDMENT OR REQUEST FOR RECONSIDERATION IN RESPONSE TO THIS

FINAL OFFICE ACTION SHOULD BE DIRECTED TO:

Commissioner of Patents and Trademarks

Box AF

Washington, D.C. 20231

By addressing all after final office action responses to the above address, processing time of the

response is included. This will result in more timely responses by the Office and should result in

fewer requests for extension of time.

9.   Any inquiry concerning this communication or earlier communication from the examiner

should be directed to the examiner Ming Chow whose telephone number is (703) 305-4817. The

examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm. If attempts

to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can

be reached on (703) 305-4895. Any inquiry of a general mature or relating to the status of this

application or proceeding should be directed to the Customer Service whose telephone number is

(703) 306-0377. Any inquiry of a general nature or relating to the status of this application or

proceeding should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to TC2600's Customer Service FAX Number 703-872-9314.

Patent Examiner

Art Unit 2645

Ming Chow

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600